

**Amendments to the Claims:**

*This listing of claims will replace all prior versions, and listings, of claims in the application:*

1                   1. (currently amended) A method of dynamically shortening  
2    error correction codewords in an error correction code interleaving arrangement that  
3    divides error correction codewords into segments for recording across a ~~codeword~~  
4    matrix, the method comprising:

5                   defining a matrix wherein the matrix comprises user data and error  
6   correction codewords;

7                   receiving user data for recording on a storage medium;  
8                   determining the size of the received user data and the amount of the  
9   matrix that will be filled by the received user data; and  
10                  recording error correction codewords segments in an interleave  
11   dynamically created to correspond only to the portion of the matrix filled by the user  
12   data.

1                   2. (currently amended) The method of claim 1 wherein the user  
2   data is partitioned for recording onto the recording medium in a plurality of tracks,  
3   and each error correction codeword segment of a ~~codeword~~ is recorded on a separate  
4   track.

1                   3. (currently amended) The method of claim 1 wherein the  
2   matrix includes a predetermined number of partitions each dimensioned to hold a  
3   predetermined number of bytes of user data, ~~and determining the amount of matrix~~  
4   ~~that will be filled comprises determining the number of partitions filled by the user~~  
5   ~~data.~~

1                   4. (currently amended) The method of claim 3 wherein if the  
2   user data does not fill all the partitions, shortening the error correction codewords

3 to provide an interleave of the error correction codeword segments corresponding  
4 to the number of partitions filed by the user data.

1 5. (currently amended) The method of claim 1 further  
2 comprising:

3 reading the data from the storage medium;  
4 determining [[that]] when the data only fills a portion of the matrix;

5 and

6 automatically recreating the error correction codewords as a function  
7 of the dynamically created interleave recorded on the medium.

1 6. (original) The method of claim 5 wherein reading the data  
2 from the storage medium comprises determining the shortening value of error  
3 codewords corresponding the partial data fill.

1 7. (currently amended) A system for dynamically shortening  
2 error correction codewords used in an error correction code interleaving comprising:

3 a data buffer for receiving user data, the data buffer including a  
4 processing arrangement for determining the amount of data received in the data  
5 buffer;

6 an error correction code write buffer connected to the data buffer for  
7 receiving the user data as well as an indication of the amount of data, the write  
8 buffer including a processing arrangement for dynamically determining a shortening  
9 value for error correction codewords that correspond to the amount of user data, and  
10 recording the user data and error correction codewords codeword segments  
11 dynamically in an interleave created to correspond only to the portion of the matrix  
12 filled by the user data on a recording medium.

1 8. (original) The system of claim 7 wherein the write buffer  
2 processing arrangement is further arranged to divide each of the determined number

3        of error correction codewords into a plurality of segments, and each segment is  
4        recorded on a different track.

1                9.        (original) The system of claim 7 wherein the write buffer  
2        processing arrangement is further arranged to process the user data into a  
3        predetermined number of partitions each dimensioned to hold a predetermined  
4        number of bytes of user data, and only partitions corresponding to the amount of  
5        user data are filled.

1                10.      (original) The system of claim 7 wherein the write buffer  
2        processing arrangement is further arranged to determine an amount of an error  
3        correction codeword matrix that will be filled by the received user data, the  
4        shortening size of the error correction codewords is determined to correspond only  
5        to the portion of the matrix filled by the user data.

1                11.      (original) The system of claim 7 further comprising:  
2                        an error correction read buffer having a processing arrangement for  
3        reading the data from the storage medium, and determining that the data only fills  
4        a portion of an error correction codeword matrix, wherein the read buffer processing  
5        arrangement automatically determines the shortening value of the error correction  
6        codewords corresponding the partial data fill.

1                12.      (new) The method of claim 1 wherein determining the amount  
2        of matrix that will be filled by the received user data comprises determining the  
3        number of partitions filled by the user data.